service bulletin

JULY 15, 1974

FLUKE

sb-61

(Supersedes sb - 59)

MODEL 8000A DIGITAL IC REPLACEMENT

INTRODUCTION

The Model 8000A contains two LSI chips. Occasionally the two chips will not operate together so that the instrument can be calibrated. Furthermore, sometimes, an incorrect sign will be displayed when a negative over-load is placed across the input terminals. This service bulletin is a modification for the purpose of improving compatibility between the LSI chips and, also, to eliminate the negative over-load problem.

SERIAL NUMBER EFFECTIVITY

This modification is to be performed on all Model 8000A's and 8000A-01's with serial numbers less than 81300.

MODIFICATION

Perform the 8000A or 8000A-01 modification according to the type of instrument to be modified.

8000A

If not already done, remove Q25, R13 and R14. See Figure 1. If the above components have been removed, remove the jumper shown in Figure 1. Serial numbers equal to or greater than 72400 will have land in place of the jumper. Remove this land with a sharp exacto knife. Connect a 2N3904 transistor as shown in Figure 1. Use teflon sleeving (Fluke P/N 175967) on the collector lead. Replace R13 with a 220k ohm, ¼W, 5%, carbon composition resistor (Fluke P/N 160937). If not already done, install a 47k ohm, 5%, ¼W, carbon composition resistor as shown in Figure 1.

8000A-01

If not already done, remove Q25, R13 and R14. See Figure 2. If the above components have been removed, remove the jumper shown in Figure 2. Serial numbers equal to or greater than 70000 will have a land in place of the jumper. Remove the land with a sharp exacto knife. Connect a 2N3904 transistor (Fluke P/N 218396) as shown in Figure 2. Replace R13 with a 220k ohm ¼W, 5%, carbon composition resistor (Fluke P/N 160937). If not already done, install a 47k ohm, ¼W, 5%, carbon composition resistor and teflon sleeving as shown in Figure 2.

PARTS ORDERING

When ordering an 8000A or 8000A-01 digital IC, U4, P/N 326017, all parts required for the modification will be in-

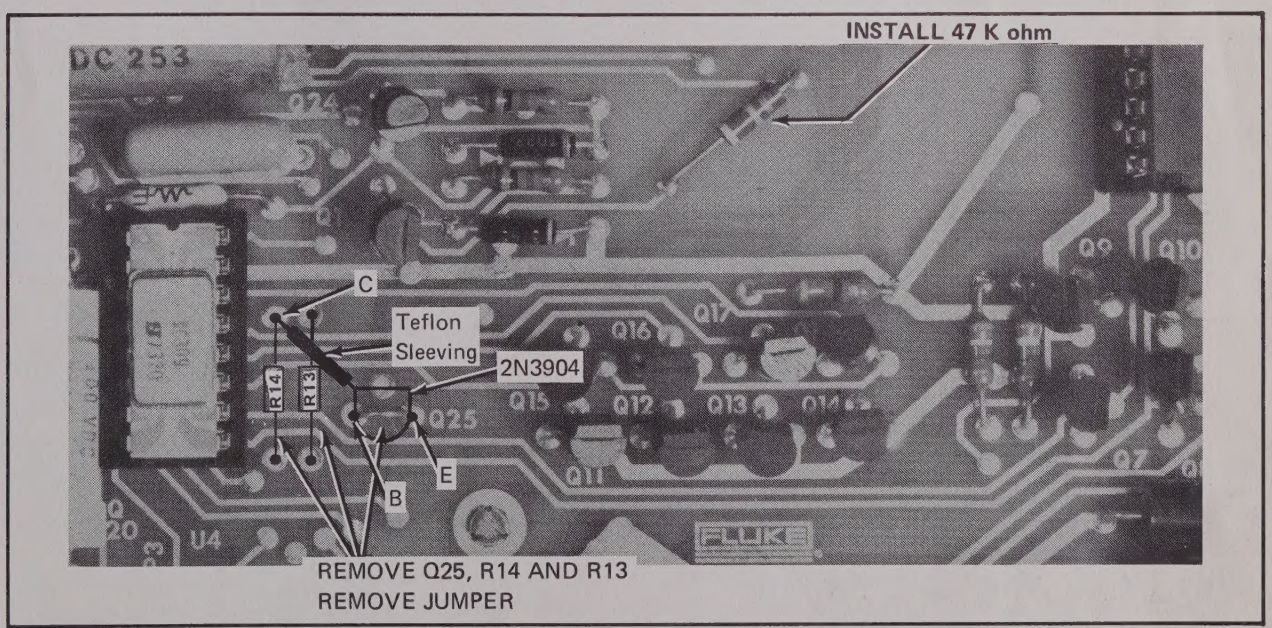

Figure 1

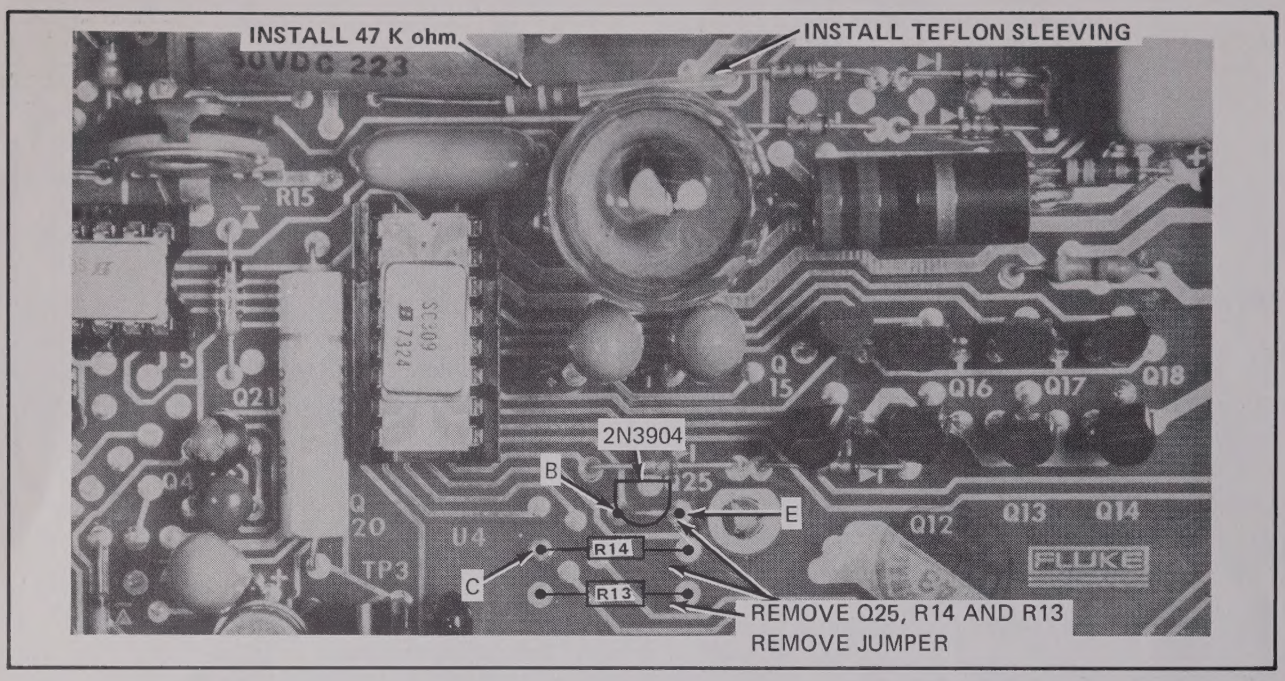

Figure 2

cluded with the IC. If your instrument has been modified or is above the affected serial numbers, the new part number for IC, U4, is 375154. This part number is for U4 only without the parts required for modification.

SCHEMATIC CHANGES

Modify the schematic in the 8000A manual as shown in Figure 3.

LIST OF REPLACEABLE PARTS

After the modification is completed, change the list of replaceable parts as follows:

1. The new part number for U4 is 375154.
2. Change the description for Q25 to Xstr, si, NPN and change the part number of Q25 to 218396.
3. Change the description of R13 to 220k ohm, and the part number to 160937.
4. Delete R14.
5. Add the part number for the 47k ohm resistor, (P/N 148163).

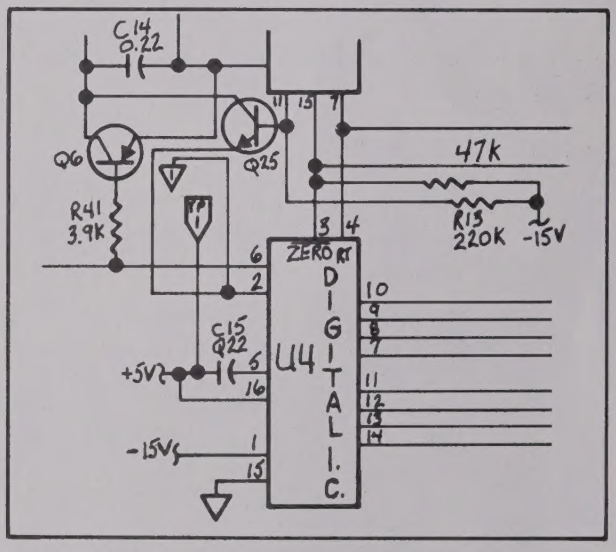

Figure 3

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